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Observationes JOVIS ad duas Fixas transeuntis, *Derbia* Anglorum habitæ mensibus Febr. & Martii A. 16<sup>71</sup><sub>72</sub>. ff. veteri à *Joh. Flamsteed*.

— **M**itto Tibi duos Jovis transitus, accuratè, ni fallor admodùm observatos, posteriorem imprimis; ad eò ut (absit dicto jactantia) paucas, inter observationes hæcenus factas, hisce equiparandas crediderim. Impertiri eas poteris quibuscunque volueris. Invenies utique, Rudolphina loca Jovis magis errare quàm Carolina: qua de re Clarissimum Hevelium, qui Tabulas istas omnium qua extant optimas arbitratur, moneri velim.

Martii 19. & 27. novissimis, aliquot habebam Observationes maxime elongationis quarti Satellitis à Jove, eamque deprehendi (minimùm)  $24\frac{1}{2}$  semi-diametros Jovis ab ipso Jove, vel  $24\frac{1}{2}$  juxta Generosum & Doctum Townlejum; non verò 23, ut Dn. Cassinus autumat. Ex eo tempore observare ulterius, ob lentem meam objectivam casu vitiatam, non licuit.

#### Sequuntur Observationes ipsæ.

**A**D Jovis loca & latitudines in Ephemeridibus Heckeri consignata advertens, comperi, ipsum cum Fixa Lucis 4<sup>a</sup> (cujus latitudo  $1^{\circ}.40'$ . Ber. locus mihi  $14^{\circ}.7'.16''$ ; at Streetio,  $14^{\circ}.3'.54''$ .) junctum, ire secundum longitudinem, Febr. 13. h. 6. p. m. sed cum latitudine minori  $11''$ . Mecum propterea constituebam, ad hunc Transitus attendere. At nubes & pluviosæ noctes observationem distulere ad —

16. Februarii, quo die, calo satis serenante, ad observationem me accinxi, & h. 7.  $44\frac{1}{2}$ , alto  $418^{\circ}.10'$ , ejus à Fixa distantiam Tubo longiori dimensus sum,  $16'.33''$ . & differentiam altitudinum centrorum  $4''$  &  $\frac{1}{2}$ ,  $1'.1''$ . nocte sequente.

17. Febr. h. 7.  $25'$ . p. m. alto  $415^{\circ}.54'$ . ipse à Fixa distatit  $50''$ ; altitudinum differentia erat  $8'.40''$ . Eadem nocte, h. 8.  $59'$ . vel forsas 1. min. matutinis, Satelles primus ad dextram  $4''$ , in ipsius umbram incidit, adeo tamen evanescentis exigna erat à limbo distantia, ut quanta fuerit dijudicare non potuerim.

18. Febr. h. 7.  $0'$ . Fixa distantia à centro  $4''$  erat  $28'.15''$ ; altitudinum differentia circ.  $15'.29''$ . In utraque observatione Erro altior erat Fixæ, à qua semper Meridianum versus stetit.

*Inio dein calculo ad dies singulos & horas Observationum, investigavi*

	d. h.	d. b.	d. o.
Februar.	16. 7. 44 <sup>4</sup>	17. 7. 25	18. 7. 0.
Jovis à Fixa longitudinem in Antecedentia	0. 9. 16	0. 17. 22.	0. 25. 12.
Latitudinem ad Austrum ab ea	0. 13. 30	0. 13. 14.	0. 12. 45.
Ergo 4 <sup>a</sup> Latitudo Borealis ———	1. 26. 30.	1. 26. 46.	1. 27. 15.
Locus verus ———	{ Mihi m 13. 58. 0.	{ Streetio 13. 49. 54.	13. 42. 4.
Locus Jovis à Tabulis Streetii Carolinis m	13. 54. 38.	13. 46. 32	13. 38. 42.
Latitudo vera Borealis ———	1. 29. 31.	.	1. 29. 40.

*At in Ephemeridibus Heckeri locus Jovis m 13° 45'. latitudo 1° 29' +, ita ut totis 13' in longitudine à calo dissideant; dum Authori Carolino (suo Fixæ concessio loco) error non ultra 6'. excedat: Uterque verò (minimum) 2'. 25", ne dicam 3', erret in Latitudine.*

Martii 15. (st. v.) vespere, observare cœpi Jovis distantias & positiones à Stella  $\Omega$  38, cujus latitudo 1° 20<sup>1</sup>/<sub>2</sub> Bor. Locus Streetio m 9°. 54'. 0"; mihi verò m 9°. 57'. 20". hor. 7. 25'. p. m. alto  $\simeq$  32° 52'. Distantia centri ipsius ab ipsa 33'. 50". Altitudinum differentia circæ. 20'. 42".

Mart. 16. h. 7. 48'. alta fixa 36°. Jovis ab ea distantia erat 27'. 7". Altitudo minor 16'. 3".

Noctibus Martii 17. & 18. ob nubes & ventos intermissæ observationes.

Mart. 19. varias habui, nec inaccuratas. Alto  $\simeq$  49°. 35'. i. e. h. 6. 45', Fixa altior erat quàm Planeta 2'. 24"; à quo h. 6. 55'. distatit 10'. 21". Hor. 4. 11'. limbus Planete remotissimus à Satellite 4to, in maxima ferè elongatione sito, distabat 9'. 37". Satelles idem à Fixa, 7'. 28". Interim Satelles primus ad limbum Vis appropinquabat, cui h. 7. 51'. jungebatur. Etiamnum Erro semper altior apparuit, sed vere fuit depressior quàm Fixa: postea humilior visus est, sed reverà fuit altior.

Mart. 20. melius preparato ad Altitudinum differentias capiendas Micrometro, Observationes habui (sic putem) accuratissimas, quæ sequuntur.

$\simeq$ alto	h.		
30. 0.	6. 44 <sup>1</sup> / <sub>2</sub> .	Jovis centrum verè altius erat Stellâ ———	2. 13.
30. 47.	6. 51.	Altitudinum eadem differentia rursus capta ———	2. 14.
32. 0.	6. 59.	Jovis centrum à Fixa distatit ———	7. 0.
38. 30.	7. 54 <sup>3</sup> / <sub>4</sub> .	Centrum Jovis verè altius Fixâ ———	3. 14.
40. 50.	8. 18 <sup>3</sup> / <sub>4</sub> .	Altitudinum differentia denno capta ———	3. 42.
		Et deinde Centrorum distantia erat ———	7. 5.

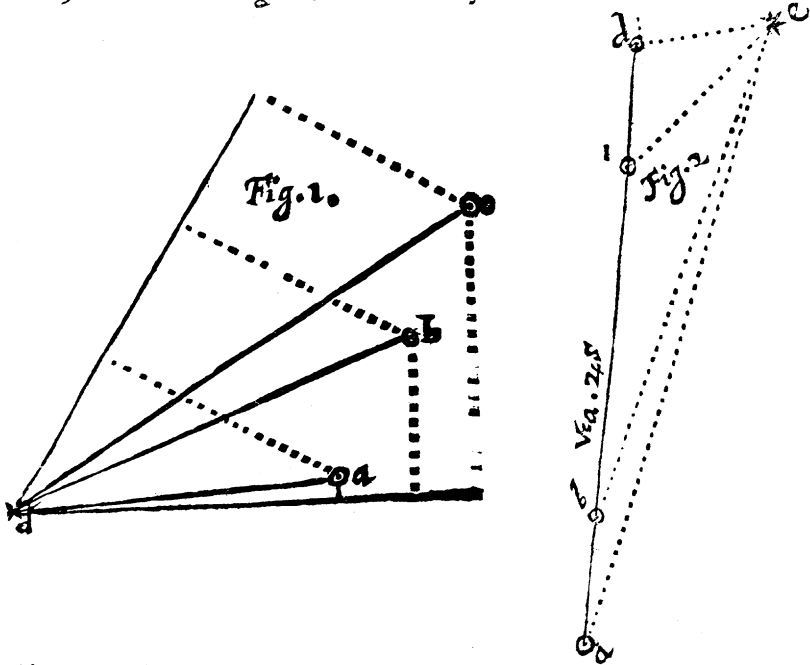
*Ad locum Jovis ex his Observationibus acquiescendum, Angulus circuli verticalis*

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ticalis cum Ecliptica supputavi ad h. 6.  $51^{\circ}\frac{1}{2}$  & h. 8.  $18^{\circ}\frac{2}{3}$ . quas inveni

	h. 6. $51^{\circ}\frac{1}{2}$ .	h. 8. $18^{\circ}\frac{2}{3}$ .
	$35^{\circ}.39'$ .	$46^{\circ}.15'$ .
Jovis erat à Fixa distantia	7. 0".	7. 0".
Altitudinum differentia	2. 14.	3. 42.
Ergo, $\mu$ erat in consequentia Fixae	2. 3.	1. 44.
cum Latitudine majori	6. 42.	6. 47.
Quare Jovis latitudo vera	1. 27. 12.	1. 27. 17.
Locus verus-	Streetio	
	Mihi	
	$\mu$ 9. 56. 3.	9. 55. 44.
	9. 59. 23.	9. 59. 4.

Jovis locus è Tab. Carolinis supputatus h. 8.  $19'$ . erat  $\mu$   $9^{\circ}.49'.40''$ . deficiens ab Observatione  $6'4''$ . Latitudo vera  $1^{\circ}.28'.57''$ . excedens observatam  $1'.40''$ . In Ephemeridibus Heckeri Jovis locus  $\mu$   $9^{\circ}.45'$ . Latitudo  $1^{\circ}.29'$ . aberrans in longit.  $13'$ . in latit.  $2'$ . fere.



In Fig. 1. exhibetur Fixa in  $\mu$   $14^{\circ}.7'$  & Jovis apparens positio, h. 7. circit. vesp.

- a. est  $\mu$  Observatus Feb. 16.
- b. est  $\mu$  obs. Feb. 17.
- c. est  $\mu$  obs. Feb. 18.
- d. est Fixa  $\Omega$  24.

In Fig. 2 exhibetur transitus  $\mu$  per Fixam in  $\mu$   $9^{\circ}.57'$ . h. circ 9. vesp.

- a. est  $\mu$  observ. Martii 15.
- b. est  $\mu$  obs. Mart. 16.
- c. est  $\mu$  obs. Mart. 19.
- d. est  $\mu$  obs. Mart. 20.
- e. est Fixa  $\Omega$  38.

In Ephemeridibus Heckeri.

Maii 30. mane h. 4.  $\mu$  ad Fixam in  $\mu$   $9^{\circ}.57'\frac{1}{2}$  directus regreditur; ejus tamen latitudo erit modo  $1^{\circ}.16'$ ; adeo  $4\frac{1}{2}$  ad Austrum à \* transibit.

Junii 30. h.  $2\frac{1}{2}$  p.m. revertetur ad \* in  $\mu$   $14^{\circ}.7'\frac{1}{2}$ ; ejus tamen latitudo erit  $1^{\circ}.14'$ . sic ut Australior futurus sit stellâ 3  $1\frac{1}{2}$ .

A